

CLAIMS:

1. An apparatus suitable for flood defence comprising at least one slab unit (3) rotatable about an axis (4) between lowered and raised positions, the at least one slab unit (3) comprising at least part of a barrier for water retention when in its raised position, characterized in that the at least one slab unit (3) is substantially balanced about the axis (4).
5
2. The apparatus as claimed in claim 1, including a base (5), the at least one slab unit (3) being rotatable relative to the base (5).
10
3. The apparatus as claimed in claim 2, including sealing means (21) for forming a seal between the at least one slab unit (3) and the base (5) when the at least one slab unit (3) is in its raised position.
15
4. The apparatus as claimed in claim 2 or 3, wherein the base (5) comprises a channel (9) into which a part of the or each slab unit (3) rotates downwardly upon deployment.
- 20 5. The apparatus as claimed in any preceding claim, including sealing means between a said slab unit (3) and an adjacent abutment (6) or slab unit (3).
6. The apparatus as claimed in claims 3 and 5, wherein the sealing means (43) between a said slab unit (3) and an adjacent abutment (6) or slab unit (3) forms a continuous seal with the sealing means (21) between the at least one slab unit (3) and base (5) when the at least one slab unit is in its raised position.
25
7. The apparatus as claimed in any one of claims 3 to 6, wherein when at least one said slab unit (3) is deployed in its raised position, a significant portion
30

of the height of the slab unit (3) is positioned downwardly of the axis (4) whereby hydrostatic pressure deployed from water being retained by the slab unit (3) compresses the seal.

5 8. The apparatus as claimed in claim 7, wherein when said slab unit (3) is deployed, substantially one third of the height of the slab unit (3) is positioned downwardly of the axis (4).

10 9. The apparatus as claimed in claim 5 or any claim dependent thereon, wherein the sealing means between a said slab unit (3) and an adjacent abutment (6) or slab unit (3) comprises at least one hinged or removable portion (43).

15 10. The apparatus as claimed in claim 9, including clamping means (47) for clamping the hinged or removable portion (43) against at least one seal (46).

11. The apparatus as claimed in claim 9 or 10, wherein the removable portion comprises a removable board (43).

20 12. The apparatus as claimed in any preceding claim, wherein the slab unit (3) comprises different portions with different densities for balancing the slab unit (3) when the slab unit is not centrally positioned relative to the axis (4).

25 13. The apparatus as claimed in claim 12, wherein at least one portion of the slab unit (3) with a different density includes at least one counterweight (24).

14. The apparatus as claimed in any preceding claim, including means to bias the at least one slab unit (3) towards the raised position.

30 15. The apparatus as claimed in claim 14, wherein the biasing means

comprises a movable weight (51).

16. The apparatus as claimed in any preceding claim, wherein the slab unit (3) forms at least part of a paved way when in its lowered position.

5

17. An installed apparatus for flood defence as claimed in claim 2 or any claim dependent thereon, wherein a substantial portion of the base (5) projects above ground level so that the apparatus provides a first level of flood defence when the or each slab unit (3) is in its lowered position and the apparatus is arranged to provide a higher second level of flood defence when the or each slab unit (3) is in its raised position.

10

18. The apparatus as claimed in any preceding claim, including at least one strut (3) which is adjustable in length for supporting at least one said slab unit (3) in its raised position.

15

19. The apparatus as claimed in any preceding claim, including locking means (17,18) for locking at least one said slab unit (3) in its lowered position.

20

20. A method for flood defence comprising the step of:

rotating at least one slab unit (3) about an axis (4) from a lowered position to a raised position so as to comprise at least part of a barrier for water retention when in the latter position, and characterized by the step of:

substantially balancing the at least one slab unit (3) about the axis (4).